

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

IN RE CHROMACODE LITIGATION

Case No. 23-cv-04823-EKL (VKD)

**ORDER GRANTING IN PART AND
DENYING IN PART CHROMACODE'S
MOTION FOR LEAVE TO AMEND
INFRINGEMENT CONTENTIONS**

Re: Dkt. No. 128

Plaintiffs California Institute of Technology and ChromaCode, Inc. (collectively, "ChromaCode") move for leave to amend their infringement contentions for two patents asserted against defendant Bio-Rad Laboratories, Inc. ("Bio-Rad"). Dkt. No. 128. Bio-Rad opposes the motion. Dkt. No. 132. The Court held a hearing on this matter on September 16, 2025. Dkt. Nos. 147, 150 (transcript).

For the reasons explained below, the Court grants in part and denies in part ChromaCode's motion for leave to amend its infringement contentions.

I. BACKGROUND

In this consolidated action, ChromaCode asserts that Bio-Rad infringes U.S. Patent No. 10,068,051 ("the '051 patent"), U.S. Patent No 10,770,170 ("the '170 patent"), and U.S. Patent No. 11,827,921 ("the '921 patent"). *See* Dkt. No. 111 at 3.

On March 21, 2024, ChromaCode served its Patent Local Rule 3-1 infringement contentions for all three asserted patents. Dkt. No. 128 at 4. On September 16, 2024, Bio-Rad filed a petition for *inter partes* review of the '921 patent. *Id.* at 7. That petition relied, in part, on

ChromaCode’s contentions for the ’921 patent in this action. *Id.* Meanwhile, the parties briefed questions of claim construction in this action, and the presiding judge issued a claim construction order on July 22, 2025. *See* Dkt. No. 125. That order found the asserted claims of the ’051 patent indefinite and construed disputed claim terms for the other two patents. *Id.*

On May 30, 2025, ChromaCode asked Bio-Rad to stipulate to proposed amendments to ChromaCode’s infringement contentions. Dkt. No. 128 at 9. Over the next few weeks, the parties conferred and ChromaCode provided additional information. *Id.* On June 27, 2025, Bio-Rad responded that it opposed the proposed amendments. *Id.*

ChromaCode filed this motion for leave to amend its infringement contentions on July 29, 2025.

II. LEGAL STANDARD

A party may amend its infringement contentions “only by order of the Court upon a timely showing of good cause,” such as the “[r]ecent discovery of nonpublic information about the Accused Instrumentality.” Patent L.R. 3-6. In assessing whether good cause exists, the Court first considers whether the moving party was diligent in seeking to amend its contentions, and then whether the non-moving party would suffer prejudice if the amendment were permitted. *Apple Inc. v. Samsung Elecs. Co.*, No. 12-cv-00630 LHK, 2012 WL 5632618, at *2 (N.D. Cal. Nov. 15, 2012) (citation omitted).

Whether a party has been diligent encompasses two considerations: (1) diligence in discovering the basis for amendment, and (2) diligence in seeking amendment once the basis for amendment has been discovered. *Monolithic Power Sys., Inc. v. Silergy Corp.*, No. 14-cv-01745-VC (KAW), 2015 WL 5440674, at *2 (N.D. Cal. Sept. 15, 2015) (citing *Positive Techs., Inc. v. Sony Elecs., Inc.*, No. 11-cv-2226 SI, 2013 WL 322556, at *2 (N.D. Cal. Jan. 28, 2013)). The party seeking leave to amend carries the burden of establishing diligence. *Id.* (citing *Radware Ltd. v. F5 Networks, Inc.*, No. 13-cv-02021-RMW, 2014 WL 3728482, at *1 (N.D. Cal. July 28, 2014)). “Diligence is a fact intensive inquiry, and courts do not apply a mechanical rule in assessing a party’s diligence but instead consider the factual circumstances in total.” *Word to Info Inc. v. Facebook Inc.*, No. 15-cv-3485-WHO, 2016 WL 6276956, at *6 (N.D. Cal. Oct. 27, 2016).

“If the court determines that the moving party was not diligent, the inquiry may end there.” *Twilio, Inc. v. TeleSign Corp.*, No. 16-cv-06925-LHK (SVK), 2017 WL 3581186, at *2 (N.D. Cal. Aug. 18, 2017) (citation omitted). “However, the court retains discretion to grant leave to amend in the absence of diligence where there is no prejudice to the opposing party.” *Id.* (citations omitted); *see also Karl Storz Endoscopy-Am., Inc. v. Stryker Corp.*, No. 14-cv-00876-RS (JSC), 2016 WL 2855260, at *7 (N.D. Cal. May 13, 2016) (collecting cases).

III. DISCUSSION

ChromaCode’s proposed amendments concern its infringement contentions for the ’170 patent and the ’921 patent. *See* Dkt. No. 150 at 3:7-9, 22:12-16, 37:3-5. The amendments fall into four categories that ChromaCode describes as follows: (1) “single sample volume”; (2) coding tables; (3) accused assays; and (4) insertion of Bates numbers. Dkt. No. 128 at 1-2. ChromaCode characterizes its proposed amendments as either narrowing or clarifying its existing contentions. *Id.* Bio-Rad does not object to the fourth category of proposed amendments—insertion of Bates numbers—but it characterizes the other amendments as adding new theories of infringement and new accused products. Dkt. No. 132 at 1, 6 n.6. Bio-Rad objects to these proposed amendments, citing both diligence and prejudice concerns. *Id.* at 1.

As there is no dispute regarding ChromaCode’s proposal to amend its infringement contentions to substitute citations to Bates numbered documents for existing citations to documents at their URL addresses, *see* Dkt. No. 132 at 6 n.6, the Court grants this portion of ChromaCode’s motion as unopposed. The Court addresses the proposed amendments that are disputed below.

A. Single sample volume

“Single sample volume” is a claim term that appears in the asserted claims of the ’921 patent. *ChromaCode, Inc. et al. v. Bio-Rad Laboratories, Inc.*, No. 23-cv-06360-EKL, Dkt. No. 54-3 at 48. In its original infringement contentions for limitation 1(c) of claim 1 of the ’921 patent, ChromaCode asserted, in relevant part:

For all of Bio-Rad’s infringing ddPCR assays and kits, the detection is performed in a single sample volume that is subsequently

partitioned into multiple droplets.

[Image]

See Dkt. No. 127-3 at ECF 377; *see also id.* at ECF 374-382. Further, with respect to limitation 1(e) of the same claim, ChromaCode asserted:

The analytes are amplified in the single sample volume. For example, the single sample is partitioned into individual droplets:

[Image]

... Following droplet generation, the sample is amplified in a thermal cycler:

Id. at ECF 384-385.

ChromaCode proposes to amend its “single sample volume” contentions by deleting the clause “the detection is performed in a single sample volume that is subsequently partitioned into multiple droplets” and replacing it with the clause “[t]he analytes are amplified in the single sample volume, such as in a droplet or well.” Dkt. No. 128 at 7. ChromaCode’s redline shows the pertinent changes to its contentions for limitation 1(c) of claim 1 of the ’921 patent as follows:

~~For all of Bio-Rad’s infringing ddPCR assays and kits, the detection is performed in a single sample volume that is subsequently partitioned into multiple droplets.~~

The analytes are amplified in the single sample volume, such as in a droplet or a well:

...

Following droplet generation, the sample is amplified in a thermal cycler:

...

Following amplification, each droplet is analyzed individually for color detection.

Dkt. No. 127-6 at ECF 581-582; *see also id.* at ECF 577-606. Similarly, ChromaCode’s redline shows the pertinent changes to its contentions for limitation 1(e) of the same claim as follows:

The analytes are amplified in the single sample volume. ~~For example, the single sample is partitioned into individual droplets,~~
such as in a droplet or a well:

...

Following droplet generation, the sample is amplified in a thermal cycler:

...

Following amplification, each droplet is analyzed individually for color detection.

Id. at ECF 609-610.

ChromaCode describes these proposed amendments as narrowing its contentions regarding the “single sample volume” limitation. Dkt. No. 128 at 4, 7. According to ChromaCode, its original contentions asserted that a single sample volume could be either: (1) a droplet, or (2) the solution before being partitioned into droplets. *Id.* at 1, 4, 7. It explains that the proposed amendments rely exclusively on the “single droplet theory” and eliminate the “alternative theory based on a single sample volume being the original sample that is subsequently partitioned into droplets.” Dkt. No. 128 at 4, 10-11.

Bio-Rad characterizes the proposed amendments differently. According to Bio-Rad, after originally contending that the “single sample volume” could be a volume of liquid that is *subsequently* partitioned into droplets, ChromaCode now seeks to amend its contentions to specify that the “single sample volume” is limited to liquid volumes that have *already* been partitioned into droplets. Dkt. No. 132 at 4. Bio-Rad argues that the proposed amendments represent a fundamental change in ChromaCode’s infringement theory based on a new claim construction that was never briefed by the parties or resolved by the district court.¹ *Id.* at 1, 4, 9; *see also* Dkt. No. 150 at 50:9-51:6.

Infringement contentions are not merely a vehicle for the disclosure of evidence; they force patentees to crystallize their theories of infringement and adhere to those theories after they have been disclosed. *Alberta Telecomms. Rsch. Ctr. v. Rambus Inc.*, No. 06-cv-02595 RMW (RS), 2007 WL 4170564, at *1 (N.D. Cal. Nov. 19, 2007) (“Patent Local Rule 3-1 requires parties to crystallize their theories of the case early in the litigation and to adhere to those theories once they have been disclosed.”) (internal quotations and revisions omitted). However, nothing in the Patent

¹ No party asked the presiding judge to construe “single sample volume.”

1 Local Rules requires a patentee to continue to press a theory of infringement that it has concluded
2 is not supported by the evidence.

3 During the hearing on this motion, the Court and the parties addressed at length the nature
4 of ChromaCode’s proposed amendments. Both sides appear to agree that ChromaCode’s original
5 contentions *do* encompass both the single droplet theory and the alternative pre-partition theory of
6 infringement for the single sample volume limitation. *See* Dkt. No. 128 at 1, 4, 7; Dkt. No. 132 at
7 3 (Bio-Rad summarizing PTAB characterization of the parties’ interpretation of the scope of
8 “sample volume”); Dkt. No. 150 at 10:17-11:24, 14:18-15:7. Despite some ambiguity in its
9 moving papers regarding the basis for amendment, ChromaCode clarified during the hearing that it
10 lacks evidentiary support for its contention that Bio-Rad meets the single sample volume
11 limitation under the alternative pre-partition theory, and so ChromaCode no longer wishes to
12 pursue that theory of infringement. Dkt. No. 150 at 12:16-13:5, 14:14-15:23. Moreover,
13 ChromaCode conceded that the claim language can be interpreted to encompass both of its
14 original theories of infringement, and it affirmed that it is not advocating a narrower claim
15 construction—i.e. one that is limited to the single droplet theory. *See id.* at 12:6-13:5, 19:23-
16 20:19, 21:24-22:8, 56:14-21. In these circumstances, the Court agrees that ChromaCode’s
17 proposed amendments are correctly understood as eliminating one of two disclosed theories of
18 infringement, without implying any change to the broader claim construction on which
19 ChromaCode relied when it served its original contentions.

20 *Diligence.* ChromaCode does not address the question of diligence in its opening motion,
21 except to emphasize that it is not adding any new contentions but merely eliminating one of two
22 previously disclosed contentions. While it remains unclear to the Court when ChromaCode
23 determined its alternative pre-partition theory of infringement lacked evidentiary support, and
24 whether it should have amended its contentions at an earlier date, the Court is not persuaded that
25 delay in making this kind of amendment—eliminating a previously disclosed theory of
26 infringement without changing the underlying claim construction—presents the same concerns as
27 a failure to disclose a contention in the first instance. Indeed, parties typically stipulate to such
28 amendments. Thus, while the Court cannot determine whether ChromaCode was or was not

diligent in discovering the basis for the amendments and seeking to make the amendments, the proposed narrowing amendments are permissible, absent prejudice to Bio-Rad.

Prejudice. Bio-Rad’s principal objection to the proposed amendments is that ChromaCode is not merely narrowing its infringement theories but also changing the underlying claim construction, and this change prejudices Bio-Rad’s ability to sustain arguments it has already made in a pending IPR before the PTAB based on ChromaCode’s original infringement contentions. Dkt. No. 132 at 8-9. In addition, Bio-Rad argues that because ChromaCode waited until after claim construction in this action had been briefed and argued before disclosing its proposed amendments, Bio-Rad did not have an opportunity to take the proposed amendments into account in deciding whether to seek construction of the claim term “single sample volume.” *Id.* at 9. However, as ChromaCode concedes that it does not advocate a narrower claim construction, but only a narrower infringement theory, the proposed amendments will not have any impact on claim construction in this action, nor should they have any impact on proceedings before the PTAB.

Accordingly, the Court concludes that ChromaCode may amend its infringement contentions to eliminate its alternative pre-partition theory of infringement for the single sample volume limitation of claim 1 the ’921 patent, while retaining the previously-disclosed single droplet theory of infringement.

B. Coding tables

ChromaCode proposes to amend its infringement contentions for the ’170 patent and the ’921 patent by deleting the original “exemplary coding tables,” which use integers to represent different thresholds (e.g., image at left below), and replacing them with different coding tables, which use decimals to represent different thresholds (e.g., image at right below):

Analyte	FAM	HEX
N2	1	0
E	1	1
MHV	0	1

Analyte	FAM	HEX
<u>N2</u> ⁷	<u>1</u>	<u>0.1</u>
<u>E</u> ⁸	<u>0.6</u>	<u>0.6</u>
<u>MHV</u>	<u>0</u>	<u>1</u>

Dkt. No. 128 at 8, 11; *compare* original contentions at Dkt. No. 127-3 at ECF 368 *with* proposed

amended contentions at Dkt. No. 127-6 at ECF 538. ChromaCode explains that the coding tables are meant to be a descriptive of the chromatogram cluster plots generated using data from Bio-Rad’s accused assays. Dkt. No. 128 at 2, 5. Although ChromaCode’s original contentions state the accused assays meet the claim limitations of the asserted patents that require a “non-degenerate” coding scheme capable of yielding a definitive result, *see, e.g.*, Dkt. No. 127-3 at ECF 395², ChromaCode acknowledges that the coding tables accompanying those contentions reflect a degenerate coding scheme, not a non-degenerate coding scheme.³ Dkt. No. 128 at 5-6 & n.4. According to ChromaCode, the purpose of the proposed amendments is to “correct the exemplary coding tables to be non-degenerate and [to] more directly map to non-degenerate chromatogram cluster plots, removing any inadvertent suggestion that Plaintiffs construed the accused kits or assays to be degenerate” *Id.* at 6; *see also id.* at 8, 11; Dkt. No. 150 at 26:19-27:12, 29:2-12.

Again, Bio-Rad characterizes ChromaCode’s proposed amendments differently. According to Bio-Rad, the proposed amendments introduce new coding schemes that “raise entirely new issues relating to the acceptable tolerances of signals that are considered non-degenerate.” Dkt. No. 132 at 12. Bio-Rad emphasizes that it relied on ChromaCode’s original contentions, including its integer-based coding tables, since those contentions were served in March 2024 to develop its non-infringement and invalidity arguments in this action and its invalidity arguments in the co-pending IPR proceeding. *Id.* at 10-12; *see also* Dkt. No. 150 at 61:23-64:8, 65:4-66:9. In addition, Bio-Rad argues that because ChromaCode waited until after claim construction in this action had been briefed and argued before disclosing its proposed amendments, Bio-Rad did not have an opportunity to take the proposed amendments into account in developing its claim construction positions. Dkt. No. 132 at 12.

The Court agrees with Bio-Rad that ChromaCode’s proposed amendments, swapping out integer-based coding tables and replacing them with decimal-based coding tables, are more than an immaterial clarification or correction of its original contentions. ChromaCode argues that the

² The same text appears, for example, in the proposed amendments at Dkt. No. 127-6 at ECF 650.

³ The terms “degenerate,” “degeneracy,” and “non-degenerately” have been construed by the Court. *See* Dkt. No. 125 at 24-25.

1 chromatogram cluster plots included in its original contentions and retained in the proposed
 2 amended contentions show that the accused assays “are clearly non-degenerate.” Dkt. No. 138 at
 3 10. But that validity of that assertion is not-self-evident, and it is contested by ChromaCode.
 4 While the proposed amended contentions retain some of the same text and material as the original
 5 contentions, the coding table changes reflect changes in ChromaCode’s view of *how* it believes the
 6 accused Bio-Rad assays infringed the asserted claims of the ’170 patent and the ’921 patent.

7 *Diligence.* ChromaCode does not address the question of diligence in its opening motion,
 8 except to emphasize that it is not adding any new contentions but merely “clarifying” its existing
 9 contentions. See Dkt. No. 128 at 11; Dkt. No. 138 at 8-9. When pressed to address the question
 10 of diligence in more detail at the hearing, ChromaCode eventually explained that it discovered the
 11 “error” while reviewing its contentions in connection with the proposed amendments regarding the
 12 “single sample volume” limitations. Dkt. No. 150 at 30:2-21. This explanation is not persuasive.
 13 Because the proposed amendments to the coding tables represent a material change in
 14 ChromaCode’s contentions about how it believes the Bio-Rad accused assays infringe,
 15 ChromaCode’s failure to show, let alone address, the question of diligence in its motion papers is
 16 fatal here. On the record presented, the Court concludes that, at a minimum, ChromaCode was not
 17 diligent in discovering the basis for the proposed amendments.

18 *Prejudice.* Because the Court concludes that ChromaCode has not acted diligently with
 19 respect to amending its contentions regarding the coding scheme, it need not reach the question of
 20 whether Bio-Rad would suffer prejudice if the amendments were permitted. *O2 Micro Int’l Ltd. v.*
 21 *Monolithic Power Sys., Inc.*, 467 F.3d 1355, 1368 (Fed. Cir. 2006); *Synopsys, Inc. v. ATopTech,*
 22 *Inc.*, No. 13-cv-02965-MMC (DMR), 2016 WL 4945489, at *4-5 (N.D. Cal. Nov. 9, 2016).
 23 Nevertheless, the Court agrees with Bio-Rad that if the amendments were permitted, Bio-Rad
 24 would be prejudiced in its ability to timely develop claim construction, non-infringement, and
 25 invalidity positions responsive to ChromaCode’s changed infringement theory regarding how the
 26 accused assays satisfy the claim limitations requiring a non-degenerate coding scheme.

27 Accordingly, the Court denies ChromaCode’s motion for leave to amend its infringement
 28 contentions to change the coding tables and to make other amendments associated with those

proposed new coding tables.

C. Accused assays

ChromaCode proposes to amend its infringement contentions for the '170 patent and the '921 patent to add three new accused instrumentalities: (1) Bio-Rad assay 3542 ("3542 assay"), and (2) two assays performed by non-party Verily Life Sciences ("Verily assays"). Dkt. No. 128 at 2. ChromaCode explains that it learned of these three additional assays during discovery after serving its original infringement contentions. *Id.* at 8, 11-12. ChromaCode emphasizes that it relies on the same infringement theories for these three new assays as it does for the assays identified in its original infringement contentions. *Id.* at 8, 14. Bio-Rad opposes the proposed amendments principally on the ground that ChromaCode was not diligent in discovering the bases for the amendments or seeking leave to amend.⁴ Dkt. No. 132 at 5, 14.

Diligence. In its opening motion, ChromaCode does not explain when or how it discovered the 3542 assay, or otherwise address the question of diligence. However, in its reply, ChromaCode claims that it discovered the 3542 assay after taking discovery of a non-party in March of 2025. Dkt. No. 138 at 12-13. It argues that it would have learned of this assay sooner had Bio-Rad not failed to disclose it in response to an interrogatory. *Id.* at 12. The Court will not consider ChromaCode's belated arguments regarding diligence made for the first time in its reply. *See, e.g., United States v. Romm*, 455 F.3d 990, 997 (9th Cir. 2006) (declining to consider an argument first raised on reply because "arguments not raised by a party in its opening brief are deemed waived"); *Turtle Island Restoration Network v. U.S. Dep't of Com.*, 672 F.3d 1160, 1166 n.8 (9th Cir. 2012). However, because it appears that the 3542 assay is either part of or essentially identical to an assay or kit that ChromaCode included in its original contentions, the Court concludes that the proposed amendment adding the 3542 assay is permissible, absent prejudice to Bio-Rad.

⁴ During the hearing, Bio-Rad argued that the Verily assays are distinct from other accused assays because they are the only assays that are alleged to infringe the asserted method claims of the '170 patent that require a minimum number of targets. Dkt. No. 150 at 70:17-71:9. Bio-Rad did not make this argument in its opposition brief, and the Court will not consider it here. In any event, the point appears to be disputed. *See id.* at 84:1-6 (ChromaCode responding during hearing that it has already accused Bio-Rad of "doing tests . . . for the '170 [patent] with five targets or more.").

With respect to the Verily assays, ChromaCode concedes that it learned of the Verily assays in September 2024 and January 2025 when it received detailed documentation about them—i.e. 4-8 months before it asked Bio-Rad to stipulate to the amendments, and 6-10 months before it sought leave to amend. Dkt. No. 128 at 12; Dkt. No. 138 at 14 & n.4; *see also* Dkt. No. 127-7 (Verily production document). ChromaCode does not dispute that its proposed amendments rely on this same documentation it has had since September 2024. *See* Dkt. No. 132 at 13; Dkt. No. 138 at 14 & n.4. To the extent ChromaCode believed deposition testimony from non-party Verily was necessary to developing its proposed amendments, the record does not reflect that it was diligent in obtaining (or asking the Court to compel) such testimony. As to the Verily assays, the Court concludes that ChromaCode was not diligent in seeking amendment once the basis for amendment has been discovered.

Prejudice. With respect to the 3542 assay, Bio-Rad relies solely on a conclusory argument that if the amendment is permitted it will not have an opportunity to consider this new assay in developing its claim construction arguments. Dkt. No. 132 at 14-15. However, Bio-Rad does not explain how the addition of a new assay that is not materially different from any of the other accused Bio-Rad assays implicates any claim construction issues. Indeed, during the hearing, Bio-Rad acknowledged it did not develop its argument regarding prejudice for this assay. Dkt. No. 150 at 69:7-12. The Court finds that Bio-Rad would not suffer prejudice if ChromaCode were permitted to amend its contentions to add the 3542 assay.

With respect to the Verly assays, because the Court concludes that ChromaCode has not acted diligently in seeking amendment with respect to the Verily assays, it need not reach the question of whether Bio-Rad would suffer prejudice if the amendments were permitted. *O2 Micro*, 467 F.3d at 1368; *Synopsys*, 2016 WL 4945489, at *4-5. However, the Court notes that Bio-Rad also did not identify any concrete prejudice with respect to the Verily assays in its opposition.

Accordingly, the Court grants ChromaCode's motion for leave to amend its infringement contentions to add the 3542 assay and denies its motion to add the Verily assays.

IV. CONCLUSION

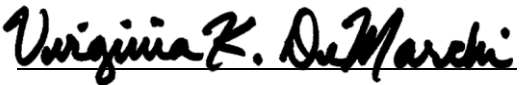
In sum, the Court orders as follows with respect to the four categories of proposed amendments at issue:

1. Single sample volume: ChromaCode's motion is granted, as set forth above; ChromaCode may amend its infringement contentions to eliminate its alternative pre-partition theory of infringement for the single sample volume limitation of claim 1 the '921 patent, while retaining the previously-disclosed single droplet theory of infringement.
2. Coding tables: ChromaCode's motion is denied.
3. Accused assays: ChromaCode's motion is granted with respect to the 3542 assay, but denied with respect to the Verily assays.
4. Insertion of Bates numbers: ChromaCode's motion is granted.

ChromaCode shall serve its amended infringement contentions, in accordance with this order, no later than **October 23, 2025**, unless the parties agree to a different date.

IT IS SO ORDERED.

Dated: October 9, 2025


Virginia K. DeMarchi
United States Magistrate Judge